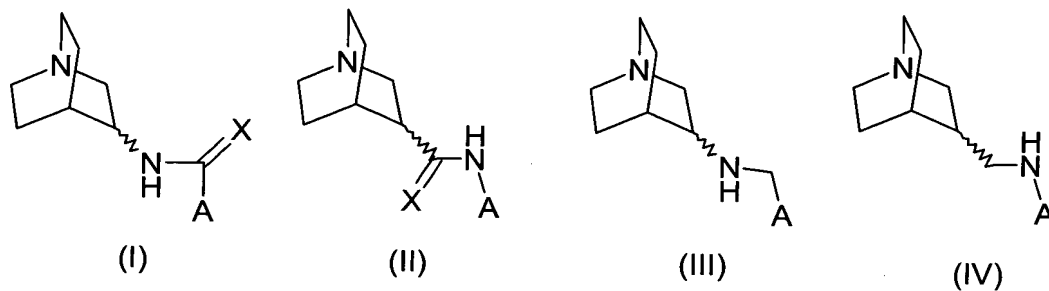


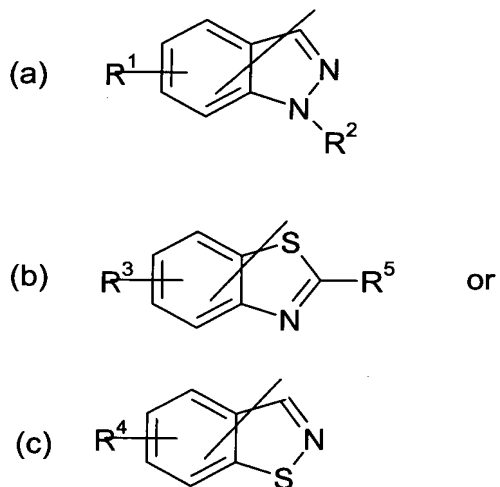
**We Claim:**

1. A compound of Formulas I, II, III, or IV:



5 wherein

- A is an indazolyl, benzothiazolyl, or isobenzothiazolyl group according to subformulas (a) to (c), respectively,



10

X is O or S;

15  $R^1$  is H, F, Cl, Br, I, OH, CN, nitro,  $NH_2$ , alkyl having 1 to 4 carbon atoms, fluorinated alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, cycloalkylalkyl having 4 to 7 carbon atoms, alkoxy having 1 to 4 carbon

atoms, cycloalkoxy having 3 to 7 carbon atoms, cycloalkylalkoxy having 4 to 7 carbon atoms, alkylthio having 1 to 4 carbon atoms, fluorinated alkoxy having 1 to 4 carbon atoms, hydroxyalkyl having 1 to 4 carbon atoms, hydroxyalkoxy having 2 to 4 carbon atoms, monoalkylamino having 1 to 4 carbon atoms, dialkylamino wherein each alkyl group independently has 1 to 4 carbon atoms, Ar or Het;

$R^2$  is H, alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, or cycloalkylalkyl having 4 to 7 carbon atoms;

$R^3$  is H, F, Cl, Br, I, OH, CN, nitro,  $NH_2$ , alkyl having 1 to 4 carbon atoms, fluorinated alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, cycloalkylalkyl having 4 to 7 carbon atoms, alkoxy having 1 to 4 carbon atoms, cycloalkoxy having 3 to 7 carbon atoms, cycloalkylalkoxy having 4 to 7 carbon atoms, alkylthio having 1 to 4 carbon atoms, fluorinated alkoxy having 1 to 4 carbon atoms, hydroxyalkyl having 1 to 4 carbon atoms, hydroxyalkoxy having 2 to 4 carbon atoms, monoalkylamino having 1 to 4 carbon atoms, dialkylamino wherein each alkyl group independently has 1 to 4 carbon atoms, Ar or Het;

$R^4$  is H, F, Cl, Br, I, OH, CN, nitro,  $NH_2$ , alkyl having 1 to 4 carbon atoms, fluorinated alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, cycloalkylalkyl having 4 to 7 carbon atoms, alkoxy having 1 to 4 carbon atoms, cycloalkoxy having 3 to 7 carbon atoms, cycloalkylalkoxy having 4 to 7 carbon atoms, alkylthio having 1 to 4 carbon atoms, fluorinated alkoxy having 1 to 4 carbon atoms, hydroxyalkyl having 1 to 4 carbon atoms, hydroxyalkoxy having 2 to 4 carbon atoms, monoalkylamino having 1 to 4 carbon atoms, dialkylamino wherein each alkyl group independently has 1 to 4 carbon atoms, Ar or Het;

5  $R^5$  is H, F, Cl, Br, I, OH, CN, nitro,  $NH_2$ , alkyl having 1 to 4 carbon atoms, fluorinated alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, cycloalkylalkyl having 4 to 7 carbon atoms, alkoxy having 1 to 4 carbon atoms, cycloalkoxy having 3 to 7 carbon atoms, cycloalkylalkoxy having 4 to 7 carbon atoms, alkylthio having 1 to 4 carbon atoms, fluorinated alkoxy having 1 to 4 carbon atoms, hydroxyalkyl having 1 to 4 carbon atoms, hydroxyalkoxy having 2 to 4 carbon atoms, monoalkylamino having 1 to 4 carbon atoms, dialkylamino wherein each alkyl group independently has 1 to 4 carbon atoms, Ar or Het;

10 Ar is an aryl group containing 6 to 10 carbon atoms which is unsubstituted or substituted one or more times by alkyl having 1 to 8 C atoms, alkoxy having 1 to 8 C atoms, halogen, dialkylamino wherein the alkyl portions each have 1 to 8 C atoms, amino, cyano, hydroxyl, nitro, halogenated alkyl having 1 to 8 C atoms,

15 halogenated alkoxy having 1 to 8 C atoms, hydroxyalkyl having 1 to 8 C atoms, hydroxyalkoxy having 2 to 8 C atoms, alkenyloxy having 3 to 8 C atoms, alkylthio having 1 to 8 C atoms, alkylsulphinyl having 1 to 8 C atoms, alkylsulphonyl having 1 to 8 C atoms, monoalkylamino having 1 to 8 C atoms, cycloalkylamino wherein the cycloalkyl group has 3 to 7 C atoms and is optionally substituted, aryloxy wherein the aryl portion contains 6 to 10 carbon atoms and is optionally substituted, arylthio wherein the aryl portion contains 6 to 10 carbon atoms and is optionally substituted, cycloalkyloxy wherein the cycloalkyl group has 3 to 7 C atoms and is optionally substituted, sulfo, sulfonylamino, acylamido, acyloxy or combinations thereof; and

25 Het is a heterocyclic group, which is fully saturated, partially saturated or fully unsaturated, having 5 to 10 ring atoms in which at least 1 ring atom is a N, O or S atom, which is unsubstituted or substituted one or more times by halogen, aryl having 6 to 10 carbon atoms and is optionally substituted, alkyl having 1 to 8 C atoms, alkoxy having 1 to 8 C atoms, cyano, trifluoromethyl, nitro, oxo, amino,

30

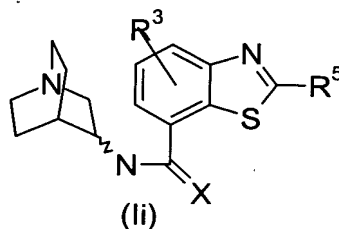
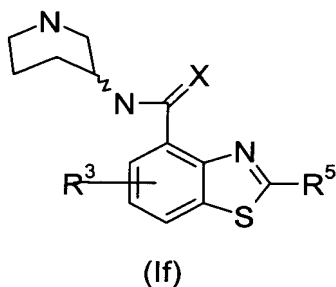
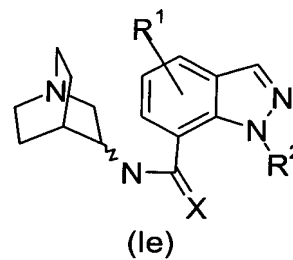
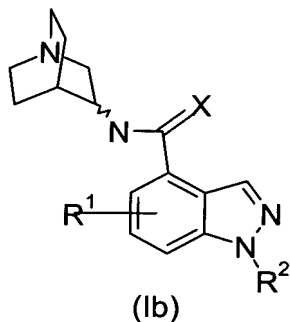
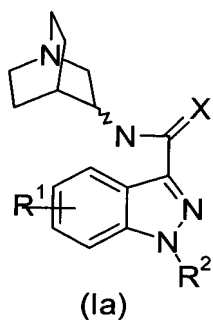
monoalkylamino having 1 to 8 C atoms, dialkylamino wherein each alkyl group has 1 to 8 C atoms, or combinations thereof; or

a pharmaceutically acceptable salt thereof,

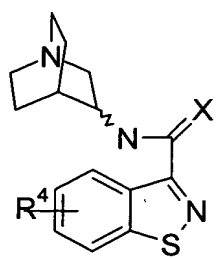
5

wherein when said compound is of Formula I the indazolyl group of group A is attached via its 3, 4, or 7 position, the benzothiazolyl group of group A is attached via its 4 or 7 position, or the isobenzothiazolyl group of group A is attached via its 3, 4, or 7 position.

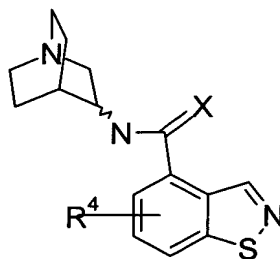
10            2.        A compound according to claim 1, wherein said compound is of formulas Ia, Ib, Ie, If, Ii, Ij, Ik, or Io:



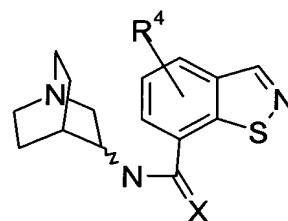
15



(Ij)

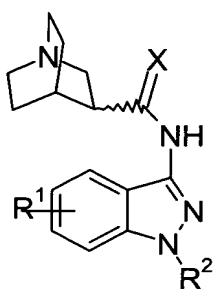


(Ik)

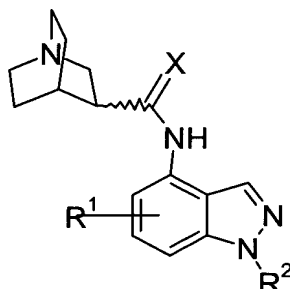


(Io)

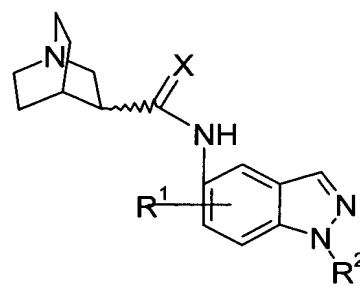
3. A compound according to claim 1, wherein said compound is of formula  
 5 IIa to IIo:



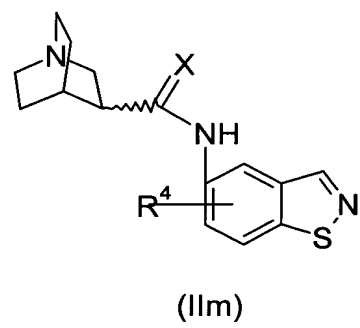
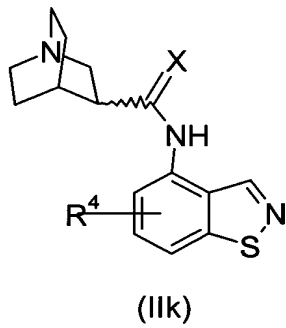
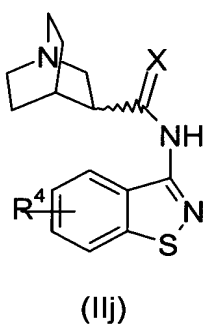
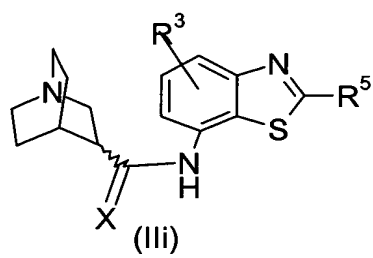
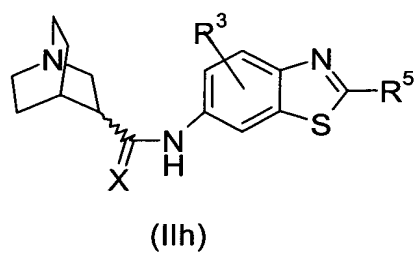
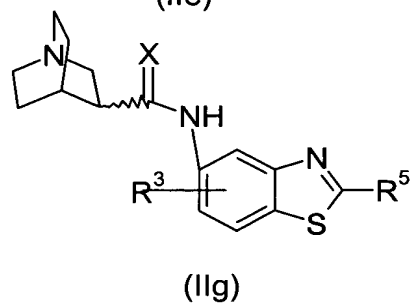
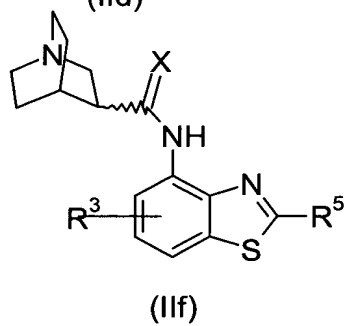
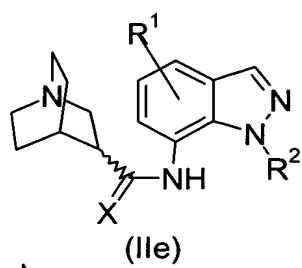
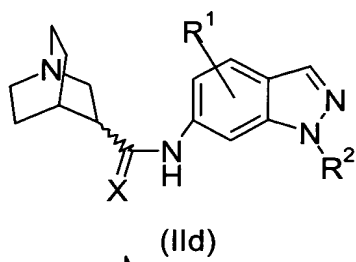
(IIa)

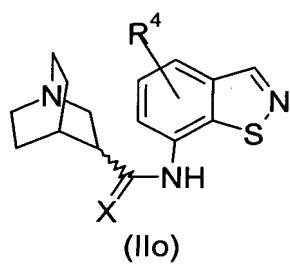
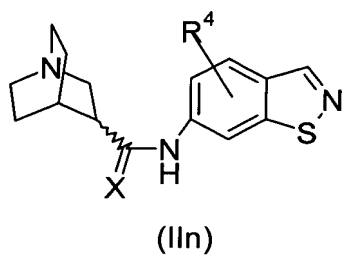


(IIb)

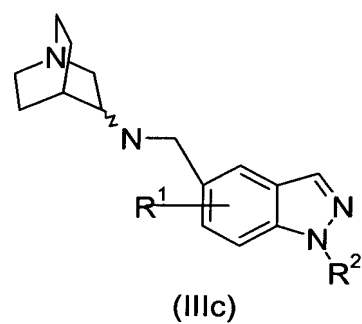
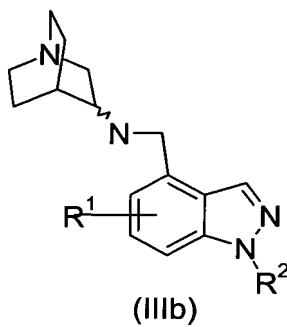
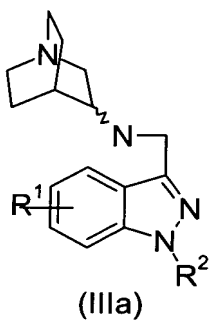


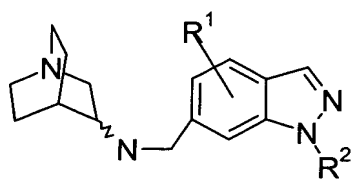
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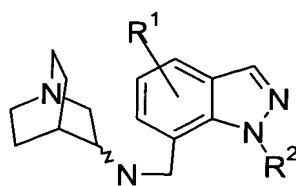


4. A compound according to claim 1, wherein said compound is of formula  
 5 IIIa to IIIo:

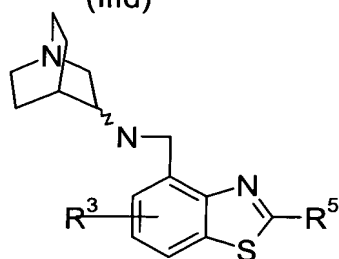




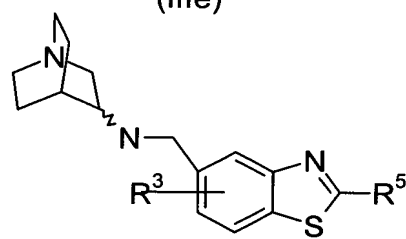
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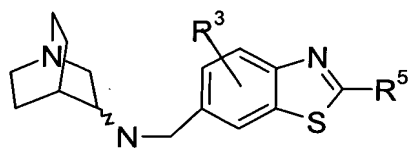
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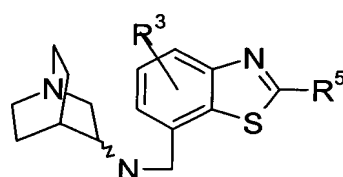
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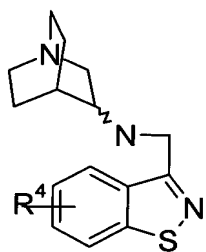
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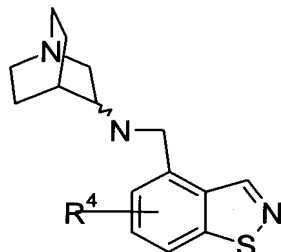
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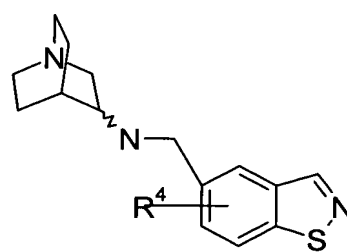
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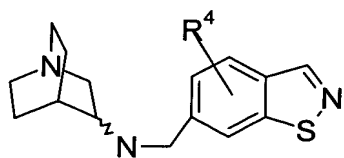
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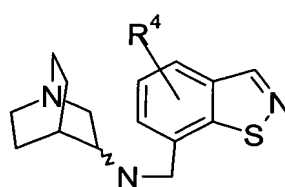
(IIIk)



(IIIlm)



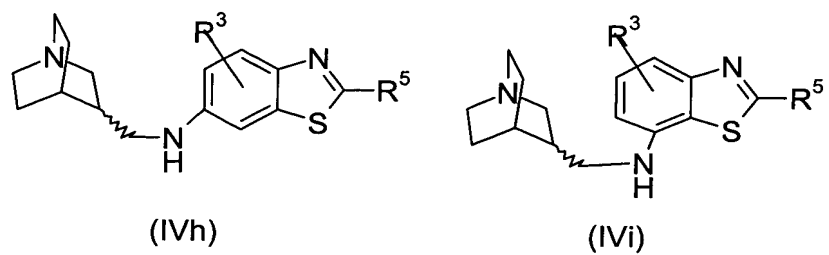
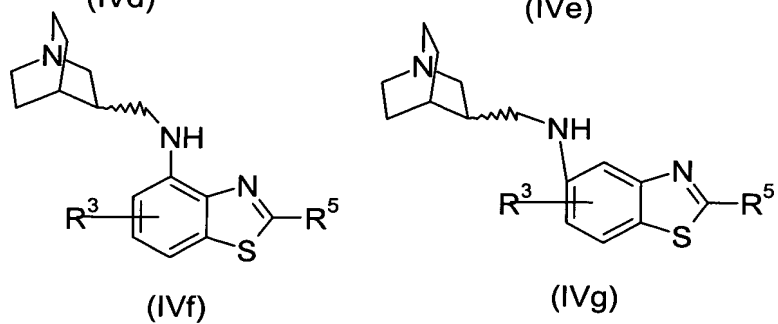
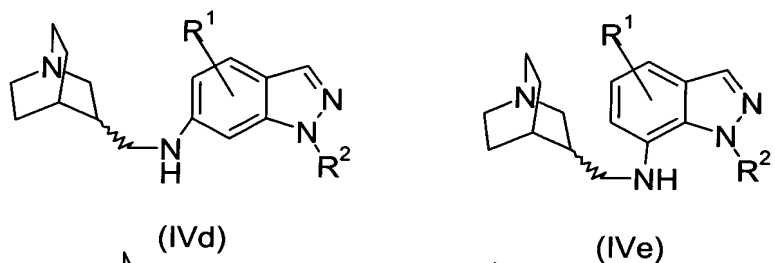
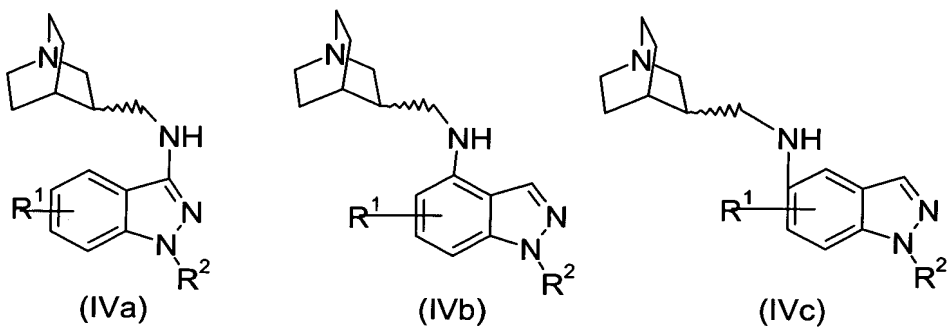
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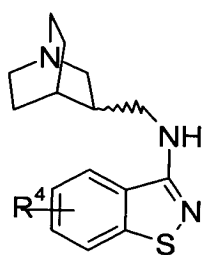


(IIIlo)

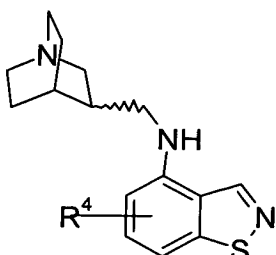


5. A compound according to claim 1, wherein said compound is of formula  
 5 IVa to IVo:

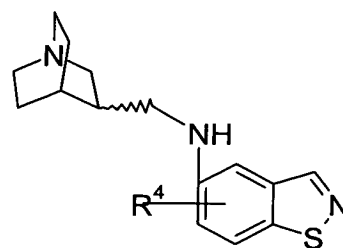




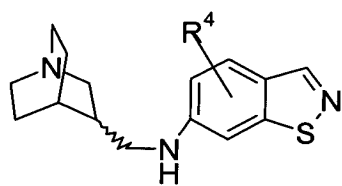
(IVj)



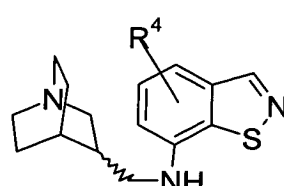
(IVk)



(IVm)



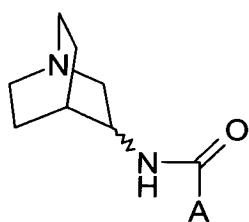
(IVn)



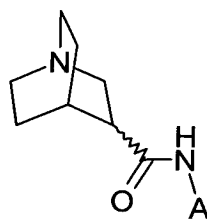
(IVo)

6. A compound according to Formulae I' - IV':

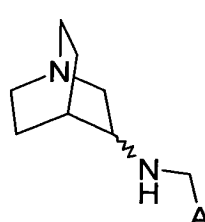
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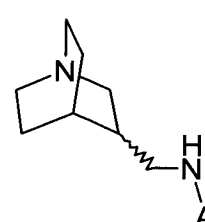
(I')



(II')



(III')

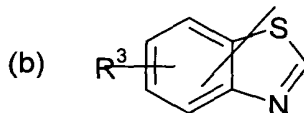
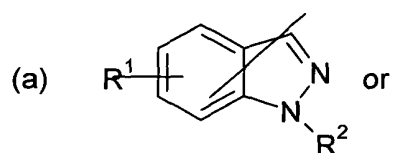


(IV')

wherein

A is an indazolyl or benzothiazolyl according to subformulas (a) to (b), respectively,

5



10 R<sup>1</sup> is H, F, Cl, Br, I, OH, CN, nitro, NH<sub>2</sub>, alkyl having 1 to 4 carbon atoms, fluorinated alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, cycloalkylalkyl having 4 to 7 carbon atoms, alkoxy having 1 to 4 carbon atoms, cycloalkoxy having 3 to 7 carbon atoms, alkylthio having 1 to 4 carbon atoms, fluorinated alkoxy having 1 to 4 carbon atoms, hydroxyalkyl having 1 to 4 carbon atoms, hydroxyalkoxy having 2 to 4 carbon atoms, monoalkylamino having 1 to 4 carbon atoms, dialkylamino wherein each alkyl group independently has 1 to 4 carbon atoms, Ar or Het;

20 R<sup>2</sup> is H, alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, or cycloalkylalkyl having 4 to 7 carbon atoms;

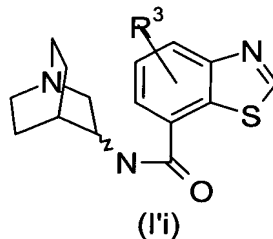
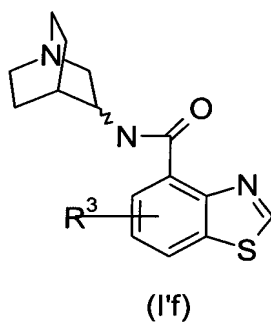
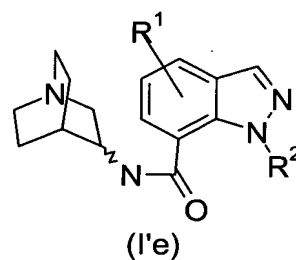
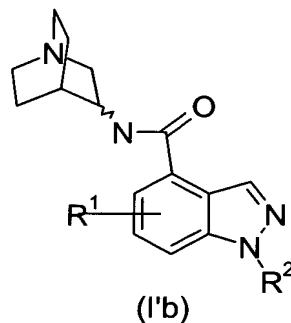
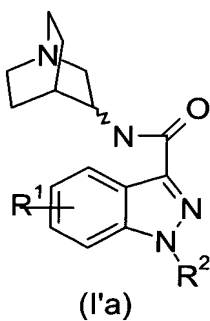
R<sup>3</sup> is H, F, Cl, Br, I, OH, CN, nitro, NH<sub>2</sub>, alkyl having 1 to 4 carbon atoms, fluorinated alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, cycloalkylalkyl having 4 to 7 carbon atoms, alkoxy having

5		1 to 4 carbon atoms, cycloalkoxy having 3 to 7 carbon atoms, alkylthio having 1 to 4 carbon atoms, fluorinated alkoxy having 1 to 4 carbon atoms, hydroxyalkyl having 1 to 4 carbon atoms, hydroxyalkoxy having 2 to 4 carbon atoms, monoalkylamino having 1 to 4 carbon atoms, dialkylamino wherein each alkyl group independently has 1 to 4 carbon atoms, Ar or Het;
10	Ar	is an aryl group containing 6 to 10 carbon atoms which is unsubstituted or substituted one or more times by alkyl having 1 to 8 C atoms, alkoxy having 1 to 8 C atoms, halogen, dialkylamino wherein the alkyl portions each have 1 to 8 C atoms, amino, cyano, hydroxyl, nitro, halogenated alkyl having 1 to 8 C atoms, halogenated alkoxy having 1 to 8 C atoms, hydroxyalkyl having 1 to 8 C atoms, hydroxyalkoxy having 2 to 8 C atoms, alkenyloxy having 3 to 8 C atoms, alkylthio having 1 to 8 C atoms,
15		alkylsulphinyl having 1 to 8 C atoms, alkylsulphonyl having 1 to 8 C atoms, monoalkylamino having 1 to 8 C atoms, cycloalkylamino wherein the cycloalkyl group has 3 to 7 C atoms and is optionally substituted, aryloxy wherein the aryl portion contains 6 to 10 carbon atoms and is optionally substituted, arylthio wherein the aryl portion contains 6 to 10
20		carbon atoms and is optionally substituted, cycloalkyloxy wherein the cycloalkyl group has 3 to 7 C atoms and is optionally substituted, sulfo, sulfonylamino, acylamido, acyloxy or combinations thereof; and
25	Het	is a heterocyclic group, which is fully saturated, partially saturated or fully unsaturated, having 5 to 10 ring atoms in which at least 1 ring atom is a N, O or S atom, which is unsubstituted or substituted one or more times by
30		halogen, aryl having 6 to 10 carbon atoms and is optionally substituted, alkyl having 1 to 8 C atoms, alkoxy having 1 to 8 C atoms, cyano, trifluoromethyl, nitro, oxo, amino, monoalkylamino having 1 to 8 C atoms, dialkylamino wherein each alkyl group has 1 to 8 C atoms, or combinations thereof; or

a pharmaceutically acceptable salt thereof.

7. A compound according to claim 6, wherein said compound is of formula

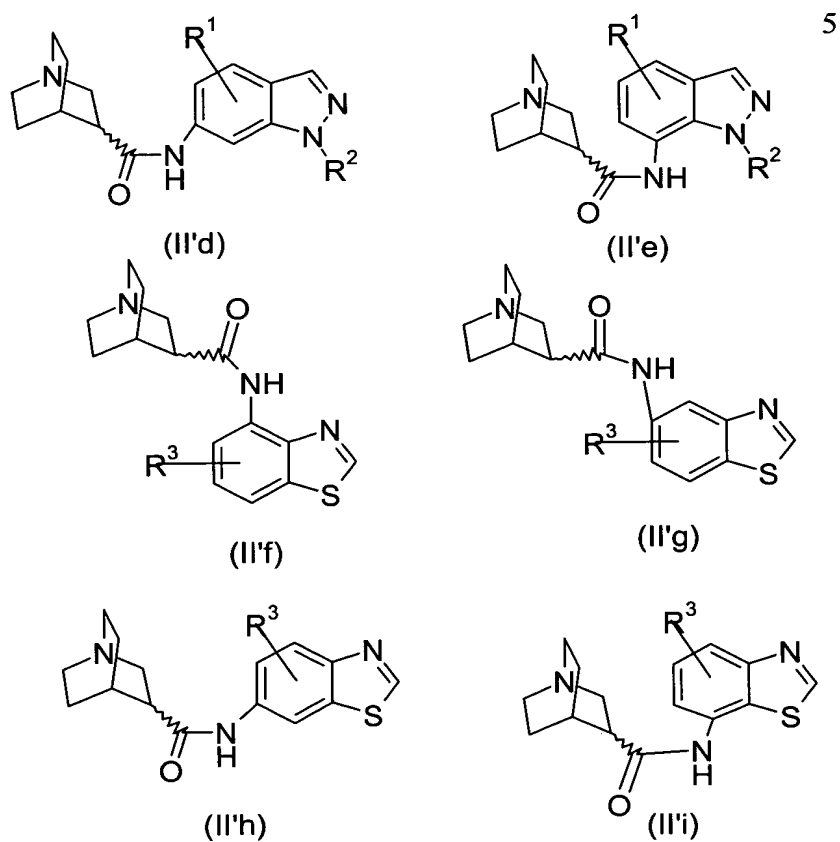
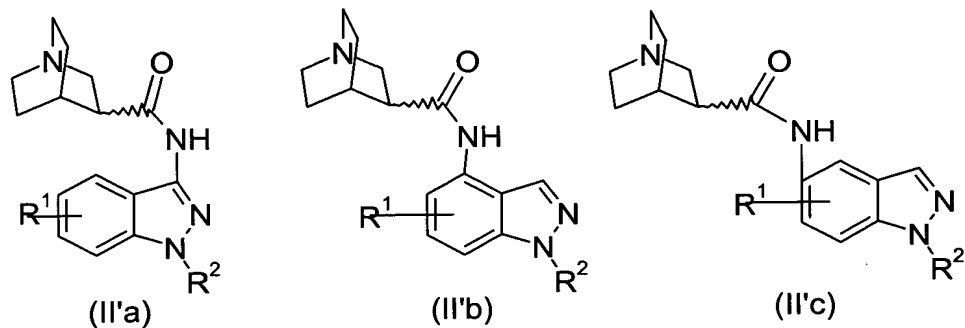
5 I'a, Ib, Ie, If, or Ii:



10

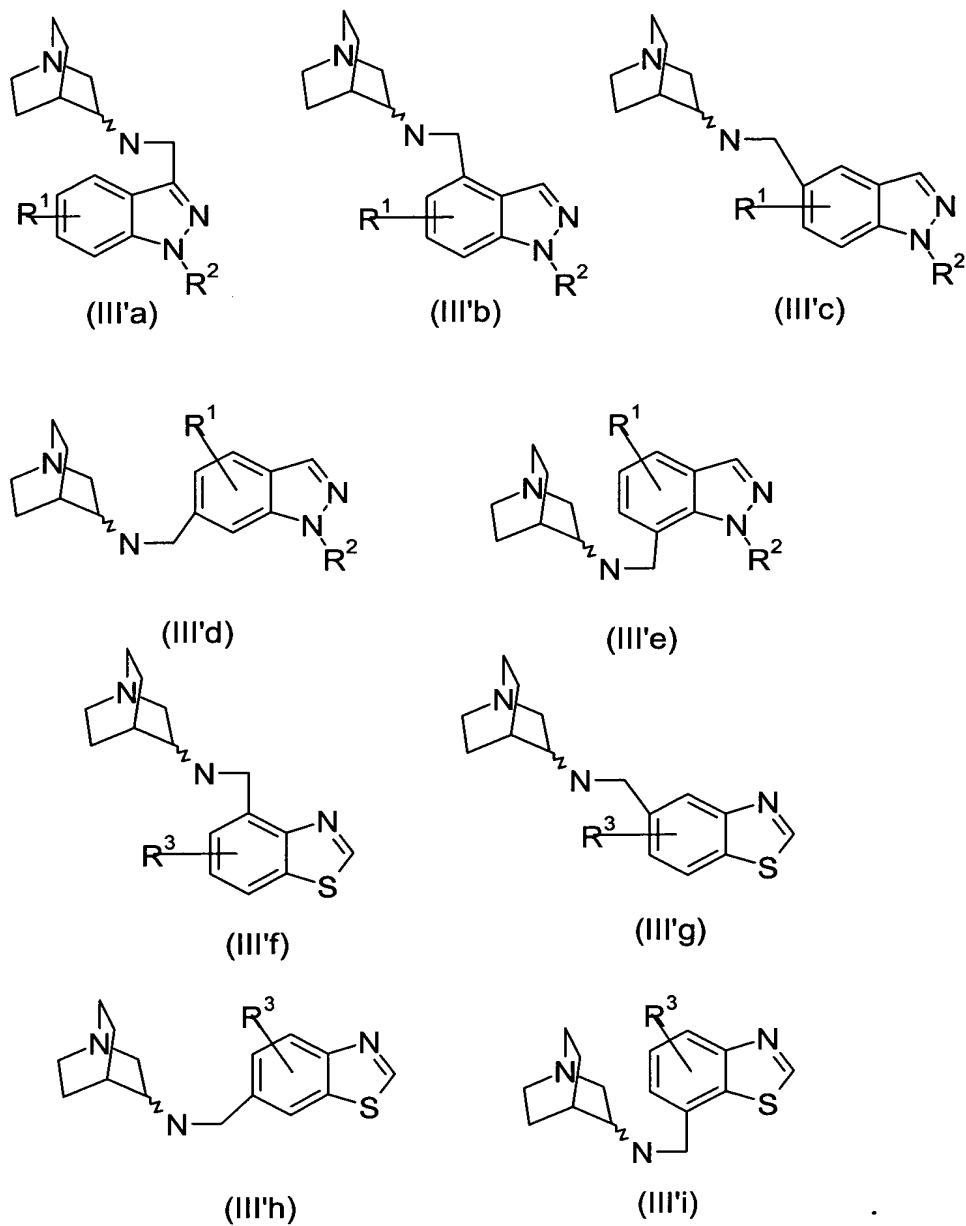
8. A compound according to claim 6, wherein said compound is of formula

II'a to II'i:



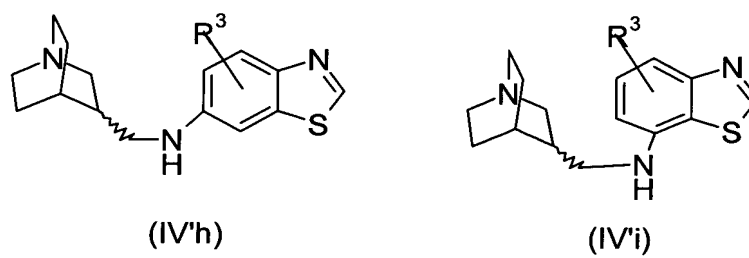
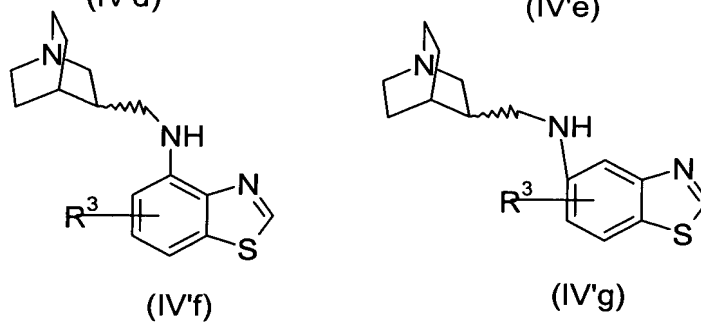
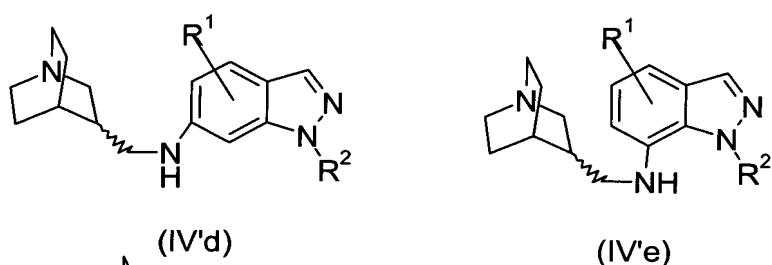
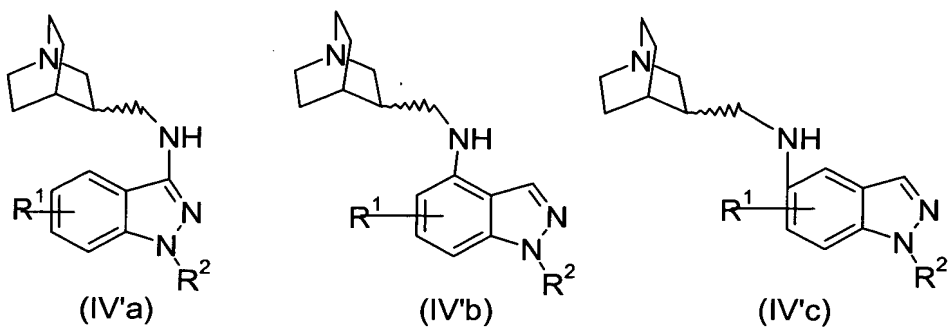
9. A compound according to claim 6, wherein said compound is of formula

10 III'a to III'i:



5

10. A compound according to claim 6, wherein said compound is of formula IV'a to IV'i:





11. A compound according to any one of claims 1 to 10, wherein  $R^1$  is H, F, Cl, Br, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl.
12. A compound according to any one of claims 1 to 11, wherein  $R^2$  is H, methyl, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl.
13. A compound according to any one of claims 1 to 12, wherein  $R^3$  is H, F, Cl, Br, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl..
- 14 compound according to any one of claims 1 to 13, wherein  $R^1$  is H, F, Cl, Br, methyl, methoxy, or amino.
15. A compound according to any one of claims 1 to 14, wherein  $R^2$  is H or methyl.
16. A compound according to any one of claims 1 to 15, wherein, and  $R^3$  is H, F, Cl, Br, methyl, methoxy, or amino.
17. A compound according to any one of claims 1 to 5, wherein  $R^4$  is H, F, Cl, Br, 2-thiophenyl, 3-thiophenyl, 3-furyl, phenyl, or methoxy.
18. A compound according to any one of claims 1 to 5 and 17, wherein  $R^5$  is H.
19. A compound according to claim 17, wherein  $R^1$  is H, F, Cl, Br, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl,  $R^2$  is H, methyl, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl, and  $R^3$  is H, F, Cl, Br, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl.
20. A compound according to claim 18, wherein  $R^1$  is H, F, Cl, Br, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl,  $R^2$  is H, methyl, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl, and  $R^3$  is H, F, Cl, Br, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl.

21. A compound according to claim 1, wherein said compound is selected from:
- N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)benzo[d]isothiazole-3-carboxamide,
- 5 N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)benzo[d]isothiazole-3-carboxamide hydrochloride,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)benzo[d]isothiazole-3-carboxamide,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)benzo[d]isothiazole-3-carboxamide hydrochloride,  
N-(1-Azabicyclo[2.2.2]oct-3-yl)-1*H*-indazole-3-carboxamide,  
N-(1-Azabicyclo[2.2.2]oct-3-yl)-1*H*-indazole-3-carboxamide hydrochloride,
- 10 N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-1*H*-indazole-3-carboxamide,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-1*H*-indazole-3-carboxamide hydrochloride,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-1*H*-indazole-3-carboxamide,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-1*H*-indazole-3-carboxamide hydrochloride,  
1-Methyl-1*H*-Indazole-3-carboxamide, N-1-aza-bicyclo[2,2,2]oct-3-yl,
- 15 (R) 1-Methyl-1*H*-Indazole-3-carboxamide, N-1-aza-bicyclo[2,2,2]oct-3-yl,  
(S) 1-Methyl-1*H*-Indazole-3-carboxamide, N-1-aza-bicyclo[2,2,2]oct-3-yl,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(bromo)benzo[d]isothiazole-3-carboxamide,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(methoxy)benzo[d]isothiazole-3-carboxamide  
hydroformate,
- 20 N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(bromo)-1*H*-indazole-3-carboxamide,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(cyclopropyl)-1*H*-indazole-3-carboxamide  
hydroformate,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(furan-3-yl)-1*H*-indazole-3-carboxamide  
hydroformate,
- 25 N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(phenyl)-1*H*-indazole-3-carboxamide  
hydroformate,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-2-yl)-1*H*-indazole-3-carboxamide,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-2-yl)-1*H*-indazole-3-carboxamide  
hydroformate,
- 30 N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-3-yl)-1*H*-indazole-3-carboxamide  
hydroformate,

- N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(bromo)benzo[d]isothiazole-3-carboxamide,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-methoxybenzo[d]isothiazole-3-carboxamide  
hydroformate,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(bromo)-1H-indazole-3-carboxamide,  
5 N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(furan-3-yl)-1H-indazole-3-carboxamide  
hydroformate,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(phenyl)-1H-indazole-3-carboxamide  
hydroformate,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-2-yl)-1H-indazole-3-carboxamide  
10 hydroformate,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-3-yl)-1H-indazole-3-carboxamide  
hydroformate,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-bromobenzo[d]isothiazole-3-carboxamide,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-cyclopropylbenzo[d]isothiazole-3-carboxamide,  
15 N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(2-fluorophenyl)benzo[d]isothiazole-3-  
carboxamide,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(2-fluorophenyl)benzo[d]isothiazole-3-  
carboxamide hydroformate,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(3-fluorophenyl)benzo[d]isothiazole-3-  
20 carboxamide,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(3-fluorophenyl)benzo[d]isothiazole-3-  
carboxamide hydroformate,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(4-fluorophenyl)benzo[d]isothiazole-3-  
carboxamide,  
25 N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(4-fluorophenyl)benzo[d]isothiazole-3-  
carboxamide hydroformate,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(3-furan-3-yl)benzo[d]isothiazole-3-  
carboxamide,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(3-furan-3-yl)benzo[d]isothiazole-3-carboxamide  
30 hydroformate,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-methoxybenzo[d]isothiazole-3-carboxamide,

- N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(morpholin-4-yl)benzo[d]isothiazole-3-carboxamide hydroformate,
- N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-phenylbenzo[d]isothiazole-3-carboxamide,
- N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-phenylbenzo[d]isothiazole-3-carboxamide
- 5 hydroformate,
- N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(pyridin-3-yl)benzo[d]isothiazole-3-carboxamide,
- N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(pyridin-3-yl)benzo[d]isothiazole-3-carboxamide hydroformate,
- 10 N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(pyridin-4-yl)benzo[d]isothiazole-3-carboxamide,
- N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(pyridin-4-yl)benzo[d]isothiazole-3-carboxamide hydroformate,
- N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-2-yl)benzo[d]isothiazole-3-
- 15 carboxamide,
- N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-3-yl)benzo[d]isothiazole-3-carboxamide,
- N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(bromo)-1*H*-indazole-3-carboxamide,
- N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(furan-3-yl)-1*H*-indazole-3-carboxamide
- 20 hydroformate,
- N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(phenyl)-1*H*-indazole-3-carboxamide hydroformate,
- N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-2-yl)-1*H*-indazole-3-carboxamide hydroformate,
- 25 N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-3-yl)-1*H*-indazole-3-carboxamide hydroformate,
- N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-bromobenzo[d]isothiazole-3-carboxamide,
- N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-cyclopropylbenzo[d]isothiazole-3-carboxamide,
- N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(2-fluorophenyl)benzo[d]isothiazole-3-
- 30 carboxamide hydroformate,

- N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(3-fluorophenyl)benzo[d]isothiazole-3-carboxamide hydroformate,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(4-fluorophenyl)benzo[d]isothiazole-3-carboxamide hydroformate,  
5 N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(furan-3-yl)benzo[d]isothiazole-3-carboxamide hydroformate,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-methoxybenzo[d]isothiazole-3-carboxamide,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(morpholin-4-yl)benzo[d]isothiazole-3-carboxamide hydroformate,  
10 N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-phenylbenzo[d]isothiazole-3-carboxamide hydroformate,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(pyridin-3-yl)benzo[d]isothiazole-3-carboxamide hydroformate,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(pyridin-4-yl)benzo[d]isothiazole-3-carboxamide  
15 hydroformate,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-2-yl)benzo[d]isothiazole-3-carboxamide hydroformate,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-3-yl)benzo[d]isothiazole-3-carboxamide,  
20 N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(bromo)-1*H*-indazole-3-carboxamide,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(furan-3-yl)-1*H*-indazole-3-carboxamide hydroformate,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(phenyl)-1*H*-indazole-3-carboxamide hydroformate,  
25 N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-2-yl)-1*H*-indazole-3-carboxamide hydroformate,  
N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-3-yl)-1*H*-indazole-3-carboxamide hydroformate,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-7-methoxybenzo[d]isothiazole-3-carboxamide,  
30 N-((3*S*)-1-Azabicyclo[2.2.2]oct-3-yl)-7-methoxybenzo[d]isothiazole-3-carboxamide,  
N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-N-(1*H*-indazol-3-yl)methyl)amine,

- N-((3*S*)-1-Aza-bicyclo[2,2,2]oct-3-yl)-N-(1H-indazol-3-ylmethyl)amine,  
N-((3*R*)-1-Aza-bicyclo[2,2,2]oct-3-yl)benzothiazole-4-carboxamide dihydrochloride,  
N-((3*S*)-1-Aza-bicyclo[2,2,2]oct-3-yl)benzothiazole-4-carboxamide dihydrochloride,  
N-((3*R*)-1-Azabicyclo[2,2,2]oct-3-yl)-1H-indazole-4-carboxamide,  
5 N-((3*S*)-1-Azabicyclo[2,2,2]oct-3-yl)-1H-indazole-4-carboxamide,  
N-(1H-Indazol-4-yl)-1-azabicyclo[2,2,2]oct-3-ylcarboxamide,  
N-(1-Azabicyclo[2,2,2]oct-3-yl)-N-(1H-indazol-4-ylmethyl)amine,  
N-((3*R*)-1-Azabicyclo[2,2,2]oct-3-yl)benzothiazole-7-carboxamide hydrochloride,  
N-((3*S*)-1-Azabicyclo[2,2,2]oct-3-yl)benzothiazole-7-carboxamide hydrochloride,  
10 N-((3*R*)-1-Azabicyclo[2,2,2]oct-3-yl)-1H-indazole-7-carboxamide,  
N-((3*R*)-1-Azabicyclo[2,2,2]oct-3-yl)-1H-indazole-7-carboxamide hydrochloride,  
N-((3*S*)-1-Azabicyclo[2,2,2]oct-3-yl)-1H-indazole-7-carboxamide,  
N-((3*S*)-1-Azabicyclo[2,2,2]oct-3-yl)-1H-indazole-7-carboxamide hydrochloride,  
Benzothiazole-4-carboxamide, N-1-aza-bicyclo[2,2,2]oct-3-yl,  
15 (R) Benzothiazole-4-carboxamide, N-1-aza-bicyclo[2,2,2]oct-3-yl,  
(S) Benzothiazole-4-carboxamide, N-1-aza-bicyclo[2,2,2]oct-3-yl,  
1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-3-yl,  
(S) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-3-yl,  
(R) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-3-yl,  
20 (S) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-4-yl,  
(R) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-4-yl,  
1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-7-yl,  
(S) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-7-yl,  
(R) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-7-yl,  
25 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, benzothiazol-4-yl,  
(S) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, benzothiazol-4-yl,  
(R) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, benzothiazol-4-yl,  
1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, benzothiazol-7-yl,  
(S) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, benzothiazol-7-yl,  
30 (R) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, benzothiazol-7-yl,  
(S) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-3-ylmethyl)-amine,

- (R) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-3-ylmethyl)-amine,  
 (S) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-4-ylmethyl)-amine,  
 (R) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-4-ylmethyl)-amine,  
 (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-5-ylmethyl)-amine,  
 5 (S) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-5-ylmethyl)-amine,  
 (R) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-5-ylmethyl)-amine,  
 (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-6-ylmethyl)-amine,  
 (S) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-6-ylmethyl)-amine,  
 (R) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-6-ylmethyl)-amine,  
 10 (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-7-ylmethyl)-amine,  
 (S) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-7-ylmethyl)-amine,  
 (R) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-7-ylmethyl)-amine,  
 (1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-4-ylmethyl)-amine,  
 (S) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-4-ylmethyl)-amine,  
 15 (R) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-4-ylmethyl)-amine,  
 (1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-5-ylmethyl)-amine,  
 (S) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-5-ylmethyl)-amine,  
 (R) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-5-ylmethyl)-amine,  
 (1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-6-ylmethyl)-amine,  
 20 (S) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-6-ylmethyl)-amine,  
 (R) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-6-ylmethyl)-amine,  
 (1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-7-ylmethyl)-amine,  
 (S) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-7-ylmethyl)-amine,  
 (R) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-7-ylmethyl)-amine,  
 25 (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-3-yl)-amine,  
 (S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-3-yl)-amine,  
 (R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-3-yl)-amine,  
 (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-4-yl)-amine,  
 (S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-4-yl)-amine,  
 30 (R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-4-yl)-amine,  
 (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-5-yl)-amine,

- (S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-5-yl)-amine,  
(R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-5-yl)-amine,  
(1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-6-yl)-amine,  
(S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-6-yl)-amine,  
5 (R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-6-yl)-amine,  
(1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-7-yl)-amine,  
(S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-7-yl)-amine,  
(R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-7-yl)-amine,  
(1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(benzothiazol-4-yl)-amine,  
10 (S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(benzothiazol-4-yl)-amine,  
(R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(benzothiazol-4-yl)-amine,  
(1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(benzothiazol-5-yl)-amine,  
(S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(benzothiazol-5-yl)-amine,  
(R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(benzothiazol-5-yl)-amine,  
15 (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(benzothiazol-6-yl)-amine,  
(S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(benzothiazol-6-yl)-amine,  
(R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(benzothiazol-6-yl)-amine,  
(1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(benzothiazol-7-yl)-amine,  
(S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(benzothiazol-7-yl)-amine,  
20 (R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(benzothiazol-7-yl)-amine,  
and physiological salts thereof.

22. A pharmaceutical composition comprising a compound according to any  
one of claims 1 to 21 and a pharmaceutically acceptable carrier.

25

23. A method of selectively activating/stimulating  $\alpha$ -7 nicotinic receptors in a  
mammal wherein such activation/stimulation has a therapeutic effect, comprising  
administering to an animal in need thereof an effective amount of a compound according  
to any one of claims 1 to 21.

30



24. A method of treating a patient suffering from psychotic diseases, neurodegenerative diseases involving a dysfunction of the cholinergic system, and conditions of memory and/or cognition impairment comprising administering to the patient an effective amount of a compound according to any one of claims 1 to 21.

5

25. A method of treating a patient suffering from dementia and other conditions with memory loss comprising administering to the patient an effective amount of a compound according to any one of claims 1 to 21.

10 26. A method of treating a patient suffering from memory impairment due to mild cognitive impairment due to aging, Alzheimer's disease, schizophrenia, Parkinson's disease, Huntington's disease, Pick's disease, Creutzfeld-Jakob disease, depression, aging, head trauma, stroke, CNS hypoxia, cerebral senility, or multiinfarct dementia comprising administering an effective amount of a compound according to any  
15 one of claims 1 to 21.

27. A method of treating and/or preventing dementia in an Alzheimer's patient comprising administering to the patient a therapeutically effective amount of a compound according to any one of claims 1 to 21 to inhibit the binding of an amyloid beta peptide  
20 with nAChRs.

28. A method of treating a patient for alcohol withdrawal or treating a patient with anti-intoxication therapy comprising administering to the patient an effective amount of a compound according to any one of claims 1 to 21.

25

29. A method of treating a patient to provide for neuroprotection against damage associated with strokes and ischemia and glutamate-induced excitotoxicity comprising administering to the patient an effective amount of a compound according to any one of claims 1 to 21.

30

30. A method of treating a patient suffering from nicotine addiction, pain, jetlag, obesity and/or diabetes, or a method of inducing smoking cessation in a patient comprising administering to the patient an effective amount of a compound according to any one of claims 1 to 21.

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31. A method of treating a patient suffering from mild cognitive impairment (MCI), vascular dementia (VaD), age-associated cognitive decline (AACD), amnesia associated with open-heart-surgery, cardiac arrest, general anesthesia, memory deficits from exposure to anesthetic agents, sleep deprivation induced cognitive impairment, chronic fatigue syndrome, narcolepsy, AIDS-related dementia, epilepsy-related cognitive impairment, Down's syndrome, Alcoholism related dementia, drug/substance induced memory impairments, Dementia Puglistica (Boxer Syndrome), or animal dementia comprising administering to the patient an effective amount of a compound according to any one of claims 1 to 21.

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32. A method of treating a patient suffering from a disease state involving decreased nicotinic acetylcholine receptor activity comprising administering to the patient an effective amount of a compound according to any one of claims 1 to 21.

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33. A method for the treatment or prophylaxis of a disease or condition resulting from dysfunction of nicotinic acetylcholine receptor transmission in a mammal comprising administering to the mammal an effective amount of a compound according to any one of claims 1 to 21.

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34. A method for the treatment or prophylaxis of a disease or condition resulting from defective or malfunctioning nicotinic acetylcholine receptors in a mammal comprising administering to the mammal an effective amount of a compound according to any one of claims 1 to 21.

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35. A method for the treatment or prophylaxis of a disease or condition resulting from suppressed nicotinic acetylcholine receptor transmission in a mammal

comprising administering to the mammal an effective amount of a compound according to any one of claims 1 to 21.

36. A method for the treatment or prophylaxis of a disease or condition  
5 resulting from loss of cholinergic synapses in a mammal comprising administering to the mammal an effective amount of a compound according to any one of claims 1 to 21.